CLAIMS

WE CLAIM:

1. A vaccine, comprising :

   a human immunodeficiency virus (HIV) vaccine candidate peptide containing an amino acid sequence selected from the group of the sequences consisting of SEQ ID NOS:1-31, 33-85, 87-109, and 111-672, in an immunologically acceptable excipient.

2. The vaccine of claim 1, wherein the peptide is between 8 amino acids and 50 amino acids in length.

3. The vaccine of claim 1, wherein the HIV vaccine candidate peptide has an amino acid sequence selected from the group of the sequences SEQ ID NO: 1-31, 33-85, 87-109, and 111-672.

4. The vaccine of claim 1, wherein the peptide is complexed to a carrier protein.

5. The vaccine of claim 1, wherein the peptide is a recombinant fusion protein.

6. The vaccine of claim 1, wherein the excipient is an adjuvant.

7. A recombinant human immunodeficiency virus (HIV) vaccine candidate peptide, comprising:

   a peptide containing an amino acid sequence selected from the group of the sequences SEQ ID NO: 1-31, 33-85, 87-109, and 111-672, wherein the peptide is expressed from a recombinant polynucleotide.

8. The recombinant peptide of claim 7, wherein the recombinant polynucleotide is a naked DNA vaccine.

9. A method for inducing an anti-human immunodeficiency virus (anti-HIV) immune response, comprising:

administering to a mammalian subject a HIV vaccine candidate peptide containing an amino acid sequence selected from the group of the sequences SEQ ID NOS: 1-31, 33-85, 87-109, and 111-672.

10. The method of claim 9, wherein the induction of an anti-HIV immune response is the raising of an anti-HIV antibody.

11. The method of claim 9, wherein the mammalian subject is a human.

12. The method of claim 9, wherein the administration is selected from the group consisting of orally, topically, parenterally, by viral infection, and intravascularly.

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